



National Weather Service

Storm Data and Unusual Weather Phenomena



May 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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ILLINOIS, Northwest

Jo Daviess County East Dubuque	16	2259CST			0	0			Flash Flood
Portions of the lower flats were evacuated due to flooding. Bridges on Menominee Road and North Apple Canyon Lake Road #1 were under water.									
Whiteside County Fulton	16	2301CST			0	0			Funnel Cloud
Stephenson County Freeport	16	2305CST			0	0	8K		Thunderstorm Wind
Severe thunderstorm winds downed 8 trees and a traffic signal.									
Whiteside County Fulton	16	2310CST			0	0	0.50K		Thunderstorm Wind
Trees were downed by severe thunderstorm winds.									
Carroll County Shannon	16	2315CST			0	0	90K		Thunderstorm Wind
Severe thunderstorm winds first blew apart a hog shed, which caused power lines to fall onto a barn. The barn and about 400 head of hog were lost in the resulting fire.									
Stephenson County Orangeville	16	2325CST 2330CST			0	1	40K		Thunderstorm Wind
Severe thunderstorm winds rolled a mobile home trailer over and destroyed it. The occupant of the trailer suffered 2 dislocated shoulders, cuts, and abrasions.									
Stephenson County Freeport to Cedarville	16	2330CST			0	0	15K		Thunderstorm Wind
Severe thunderstorm winds downed trees and power lines from Freeport through Cedarville to Rock Grove, including several at the Cedarville Cemetery. Some trees fell onto and blocked Highway 26. At the Dornink Airport in rural Cedarville, 2 hangars were destroyed and a third hangar lost its roof.									
Whiteside County 7 NW Morrison	16	2330CST			0	0			Funnel Cloud
Whiteside County Morrison	16	2330CST			0	0			Funnel Cloud
Henry County Annawan	16	2345CST			0	0	7K		Thunderstorm Wind
Severe thunderstorm winds lifted a machine shed and tossed it between a house and garage, destroying the shed.									
Whiteside County Fulton	16	2345CST			0	0	0.50K		Thunderstorm Wind
Severe winds downed trees.									
Whiteside County Tampico	16	2350CST			0	0	5K		Thunderstorm Wind
Severe thunderstorm winds caused plaster to fall inside a home and heavily damaged a garage.									
Bureau County Princeton	17	0015CST			0	0	20K		Thunderstorm Wind (G71)
Severe winds downed numerous trees and damaged a large storage building. A few other buildings were also damaged by falling trees.									
Mcdonough County Bardolph	17	0750CST			0	0			Urban/Sml Stream Fld
Highway 67 was under water and Route 9 was reported flooded.									
Mcdonough County Macomb	17	0758CST			0	0			Urban/Sml Stream Fld



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ILLINOIS, Northwest

Twelve cars stalled in water up to 18 inches deep.

Summary of events of May 16-17, 1999:

On the 16th into the 17th two lines of thunderstorms developed: one north to south across western Iowa and the other repeatedly developed east to west from Butler to Clayton counties in northeast Iowa and moved east into northwest Illinois as a squall line. Thunderstorms along this line strengthened as they moved east, with several storms producing large hail, funnel clouds, damaging winds, flash flooding, and one confirmed tornado.

The tornado (an F0) was spotted near Menominee in Jo Daviess County. hail as large as golf balls fell in East Dubuque (also in Jo Daviess County). Severe thunderstorm winds caused structural damage across portions of Stephenson, Whiteside, Carroll, Henry, and Bureau Counties. The costliest and most dramatic damage, however, did not come from tornadoes or hail but rather from flash flooding.

Several inches of rain fell over portions of East Dubuque in only a few hours, causing a major flash flood in downtown. Water flowed down a street and into the Mississippi River, ripping up pavement and washing away cars as it went.

See preceding individual Storm Data entries for further details and additional reports.

IOWA, East Central and Southeast

Buchanan County Fairbank	16	1358CST			0	0			Hail (0.75)
Buchanan County Fairbank	16	1705CST			0	0			Hail (1.00)
Buchanan County Fairbank	16	1740CST			0	0			Hail (0.88)
Buchanan County Fairbank	16	1758CST 1830CST			0	0			Urban/Sml Stream Fld
Heavy rain caused tremendous urban flooding in Fairbank, with numerous alleys and yards flooded.									
Buchanan County Fairbank	16	1806CST			0	0			Hail (1.25)
Buchanan County Fairbank	16	1807CST			0	0			Hail (1.75)
Jones County 3 NW Temple Hill	16	1815CST			0	0			Hail (0.75)
Dubuque County Dubuque	16	1955CST			0	0			Hail (1.50)
Jones County Monticello	16	2003CST			0	0			Hail (1.00)
Benton County 1 E Mt Auburn	16	2110CST			0	0	0.50K		Thunderstorm Wind
Severe thunderstorm winds downed several 30-foot trees.									
Johnson County North Liberty	16	2125CST			0	0	5K		Thunderstorm Wind
Severe thunderstorm winds, or possibly a gustnado, uprooted a tree and damaged several others at a residence. The house sustained minor damage.									
Linn County Cedar Rapids	16	2138CST			0	2	500K		Thunderstorm Wind

Severe thunderstorm winds blew most of the roof off the MidAmerica Housing partnership building in northeast Cedar Rapids. Debris from the roof was blown into other buildings and interior beams were pulled away from the structure. Severe winds also blew two 18-wheel tractor-trailer trucks off Highway 380 near Center Point, causing minor injuries. In addition, at least 20 power lines were downed in the Cedar Rapids area alone.



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IOWA, East Central and Southeast

Keokuk County
Sigourney

16 2148CST 0 0 35K Thunderstorm Wind (G71)

Severe thunderstorm winds estimated at 80 mph by spotters destroyed one building and damaged others at the county fairgrounds. The roof and walls of the commercial exhibition building were torn off, scattering debris eastward into other buildings. 2x4 boards were driven into the roof of the main fair building. Damage at the fairgrounds was estimated at \$30,000 to \$35,000.

Cedar County
1 W Lowden

16 2200CST 0 0 10K Thunderstorm Wind

An empty coal train was derailed on Highway 30 between Lowden and Clarence, blocking the eastbound tracks for nearly one day.

Johnson County
Iowa City

16 2200CST 0 0 0.20K Thunderstorm Wind

Severe thunderstorm winds downed trees.

Jones County
Anamosa

16 2200CST 0 0 0.75K Thunderstorm Wind

Severe thunderstorm winds downed a large tree, which fell onto a house.

Washington County
Washington

16 2200CST 0 0 2K Thunderstorm Wind

Severe winds tore the metal roof from a welding shop and blew it into a neighboring business.

Washington County
West Chester

16 2205CST 0 0 1K Thunderstorm Wind

Severe thunderstorm winds downed tree branches onto the roofs of at least 2 houses.

Linn County
Walker

16 2215CST 0 0 20K Thunderstorm Wind

Severe thunderstorm winds tore the roof off a barn and damaged at least 2 houses.

Muscatine County
Muscatine

16 2215CST 0 0 0.50K Thunderstorm Wind

Severe thunderstorm winds downed power lines.

Jones County
2 NE Onslow

16 2220CST 0 0 40K Thunderstorm Wind

Severe thunderstorm winds caused extensive damage on a farm northeast of Onslow. On the property, a mobile home, shop, and several smaller buildings were destroyed. The barn was shifted one foot off its foundation and several pipe gates were mangled and destroyed.

Jones County
2 SE Wyoming

16 2220CST 0 0 40K Thunderstorm Wind

Severe thunderstorm winds destroyed a cattle shed, uprooted a large tree, overturned a feed bunk, and broke windows at a farm southeast of Wyoming. Nearby, a barn was destroyed covering the road with debris, a tree was toppled onto a house, and the roof of a shed was wrapped around a tree. Another barn was also destroyed.

Jackson County
Baldwin

16 2230CST 0 0 15K Thunderstorm Wind

Severe thunderstorm winds destroyed a machine shed, one grain bin, and one silo. Two other silos and a loading chute were also damaged.

Jackson County
3.5 SE Miles

16 2230CST 0 0 50K Thunderstorm Wind

Severe thunderstorm winds caused major damage at a farm 3.5 miles southeast of Miles. The wind completely destroyed a 54'x144' machine shed, a corn crib, and extensive fencing. Numerous pieces of farm machinery were damaged. The garage was moved off its foundation, damaging the car and truck that were inside. Siding was also torn off and windows were broken at a house.

Delaware County
Manchester

16 2240CST 0 0 Flash Flood



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IOWA, East Central and Southeast

Streets and the city park were flooded.

Scott County
Long Grove

16	2250CST				0	0			Funnel Cloud
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on Route 61

Buchanan County
Fairbank

16	2255CST				0	0			Flash Flood
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Flooding made the Fairbank Bridge impassable.

Buchanan County
Lamont

16	2255CST				0	0			Flash Flood
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Flooding was reported near Highway 281 and Highway 150. Flooding was also reported south of Stanley near C57 and W33. Water covered Highway 187 south of Lamont.

Clinton County
Folletts

16	2255CST				0	0			Funnel Cloud
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Dubuque County
Dubuque

16	2258CST				0	0			Flash Flood
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Flooding was reported on Paradise Valley, Herber, and Rupp Hollow Roads.

Delaware County
2 N Dundee

16	2300CST				0	0			Flash Flood
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Flash flooding caused the boat ramp to collapse and flooded bridges at Backbone State Park.

Buchanan County
Fairbank

16	2301CST				0	0			Flash Flood
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Highway 281 was closed due to flooding, and a truck dealership and restaurant were under high water.

Dubuque County
Dyersville

16	2330CST				0	0	5M		Flash Flood
17	0100CST								

Flash flooding along the The North Fork of the Maquoketa River caused extensive damage in Dyersville. Numerous businesses across town sustained major damage. The costliest damage occurred at Scale Models, which sustained an estimated \$150,000 in damage. Other businesses reported flooding to depths of 7 feet in their basements. About 100 people were evacuated from 60 homes. State officials set the preliminary damage estimates from Dyersville at \$3 to \$5 million.

Dubuque County
Dubuque

17	0000CST				0	0	16M		Flash Flood
	0100CST								

Five to six feet of water flooded city streets in downtown. Major road damage resulted, including buckled roads and pavement washed away. Approximately 25 residential blocks were affected. Basements in over 60 houses were flooded with water from 2 feet deep up to the rafters. Flooding was reported between 20th and 28th Streets and between Washington and Jackson streets. State damage estimates were set at \$17 million in Dubuque.

Dubuque County
Dubuque

17	0045CST				0	0			Flash Flood
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The Little Maquoketa River flooded Highway 5 north of Dubuque.

Dubuque County
Durango

17	0100CST				0	0			Flash Flood
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Flooding was reported in Durango.

Dubuque County
Sageville

17	0100CST				0	0			Flash Flood
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Flooding was reported in Sageville.

Summary of events of May 16-17, 1999:

Two lines of thunderstorms developed over Iowa: one north to south across western Iowa and moved east, and the other repeatedly developed east to west from Butler to Clayton counties in northeast Iowa and moved east. The training of thunderstorms in the northern line dropped extremely heavy rains across portions of northeast Iowa, with an unofficial rainfall total of 8 inches just north of Buchanan County.



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IOWA, East Central and Southeast

The storms produced severe weather of nearly every type, including large hail (up to the size of golf balls in Fairbank in Buchanan County), damaging winds, funnel clouds, and flash flooding. Although there were no confirmed tornadoes, it is believed that some of the thunderstorm wind damage was enhanced in some places by gustnado development along the leading edge of the squall line.

The most extensive wind damage (with at least 2 minor injuries) occurred in Cedar Rapids and Walker in Linn County. Other hard-hit areas included Sigourney (Keokuk County), Washington and West Chester (Washington County), Baldwin and Miles in Jackson County, and rural Jones County near Onslow and Wyoming. Other reports of wind damage to trees and power lines came from Benton, Jones, Muscatine, and Johnson Counties. The winds also derailed a train near Lowden in Cedar County.

After the widespread heavy rain, flash flooding soon developed, with the most extensive flash flooding from Buchanan county eastward across Delaware and Dubuque Counties into Jo Daviess County in Illinois. The North Fork of the Maquoketa River surged quickly out of its banks, flooding portions of Dyersville (Dubuque County). Much of Dubuque County also suffered major damage from flash flooding. (See also Storm data entries for northwest Illinois for details on the damage in East Dubuque in Jo Daviess County Illinois.)

By mid-morning on the 17th, the flash flooding had turned into extensive river flooding and then eventually became a record flood on the Wapsipinicon River. See the following Flood entry for details.

IAZ040>042-052>054-063>068-078-089-098>099	Buchanan - Delaware - Dubuque - Linn - Jones - Jackson - Iowa - Johnson - Cedar - Clinton - Muscatine - Scott - Louisa - Des Moines - Van Buren - Lee								
	17 0900CST				0	0			Flood
	22 2300CST								

May 1999 will be remembered mainly for record flooding on the Wapsipinicon River, in addition to flooding at various other points on other area rivers. Moderate to heavy rains fell across east central Iowa from the 10th-13th causing the Wapsipinicon, Iowa, and Rock rivers to rise and subsequent minor flooding.

On the 16th into the 17th two lines of thunderstorms developed one north to south across western Iowa and moved west, and the other repeatedly developed east to west from Butler to Clayton counties in northeast Iowa and moved east. The training of thunderstorms in the northern line dropped extremely heavy rains across the Cedar, Wapsipinicon, and Mississippi river basins. Up to 8 inches (unofficially) of rain fell just north of Buchanan County in the Wapsipinicon basin.

The Wapsipinicon River quickly rose above flood stage and brought record flooding to Independence and Anamosa. The crests recorded Independence and Anamosa were 22.32 feet (on the 18th) and 16.00 feet (on the 20th), respectively, the highest crests ever recorded there. The crest lessened slightly as it moved downstream, cresting near De Witt at 13.66 feet, the second highest crest on record there.

The economic impacts to Independence were significant. Many houses and businesses from the north to south ends of town were flooded. Damage was mostly residential, with 50 to 75 residences impacted. Flooding downtown closed all three bridges over the river and required sandbagging of businesses along the bridges.

Economic impacts to Anamosa were less significant than in Independence, but were still important. The bridge on the south end of town was closed due to high water and an estimated 10 residences on the southwest side of town were flooded. Sandbagging on the south end of Anamosa along the river helped save the south end of town from major flooding.

Although no readings were available from the Maquoketa River at Manchester, moderate to major flooding occurred there also in response to heavy rains on the 16th and 17th. Mainly businesses downtown closest to the river were affected and some water made its way onto the road.

Flash flooding occurred in Dubuque and East Dubuque in association with the heavy rains on the 16th and 17th. In East Dubuque the water washed away asphalt and concrete from roads in the downtown area. Damage also occurred to businesses due to high water. See flash flood reports for Dubuque and Jo Daviess Counties for the 16th and 17th of May for more details.

Buchanan, Clinton, Delaware, Dubuque, Jones, and Linn Counties were declared Federal disaster areas due to the flooding.

Moderate flooding also occurred on the Cedar and Mississippi rivers in response to the heavy rains and water from upstream. In the Quad Cities L/D 15, Illinois City L/D 16, Muscatine, New Boston L/D 17, Keithsburg, Oquawka, and Gladstone L/D 18 only minor impacts occurred. In Burlington and Keokuk, the industrial sections were protected by levees, and only minor impacts occurred with water encroaching into some parks and parking lots. The Mississippi River remained above flood stage at some points through the end of the month.



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Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	

WISCONSIN, Extreme Southwest

NONE REPORTED.